EXHIBIT 4

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VIA ELECTRONIC MAIL

Max Tribble
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Re: ***WSOU Investments, LLC v. Cisco Systems, Inc.*, Case No. 6:21-cv-128 (W.D. Tex.)**[1]

Dear Max:

We write on behalf of our client, Cisco Systems, Inc. ("Cisco") regarding WSOU's infringement allegations as to asserted U.S. Patent Nos. 8,989,216 (the "'216 Patent"), 7,443,859 (the "'859 Patent"), 8,191,106 (the "'106 Patent"); 8,665,733 (the "'733 Patent"), and 9,357,014 (the "'014 Patent").

We received your June 23, 2021 Infringement Contentions and, as detailed below, WSOU's allegations with respect to these patents are wholly without merit, and should be dismissed immediately. This is not a case in which reasonable minds could differ, or in which both sides have reasonable arguments. In most cases, there is nothing in the accused products that even resembles the features claimed in the patents, and no reasonable investigation would have revealed otherwise. Indeed, there is nothing in the Complaint, your Infringement Contentions, or any of the referenced materials that suggests in any way the existence of these features. We are at a loss as to what could have caused WSOU to believe that there was any basis to bring a case asserting these patents.

In view of the lack of any basis to bring suit, WSOU should immediately dismiss the Complaint in the above-referenced action. If WSOU disagrees with any of Cisco's positions discussed below, please explain why and identify facts that actually support that the accused products contain the claimed features. We are happy to investigate and discuss. Otherwise, Cisco will seek all available remedies for being forced to defend against such baseless allegations.

[1] All emphases added unless noted.

Indirect Infringement. In its Infringement Contentions, WSOU purports to allege indirect infringement, relying upon allegations in the Complaint. Infringement Contentions at 3. WSOU, however, stipulated to the dismissal of its indirect infringement claims. Dkt. 22.

'216 Patent. WSOU alleges infringement of claims 1–16, which require "a Diameter protocol command dictionary comprising" multiple definitions for a given "Diameter protocol command," including "a first default definition" and "a context-specific definition."

The accused products do not have the required "first default" and "context-specific" definitions for commands in a "Diameter protocol command dictionary." And WSOU fails to allege any facts that the accused products meet this key claim limitation. This is significant because during prosecution, the applicant overcame anticipation and obviousness rejections in part by emphasizing this limitation. *See* '216 File History, 7/15/14 Response to Office Action at 8–9. Instead, the Complaint and Infringement Contentions allege that Cisco provides ***different dictionaries***, rather than a dictionary with "first default" and "context-specific" definitions for a given command. Compl., ¶ 13 (alleging Cisco "provides various diameter dictionaries," including "[a] standard dictionary" and "specific context, custom-defined dictionaries"); *see also* Infringement Contentions, Exhibit A at 5 (referencing that Cisco's "CLI syntax supports ***several custom dictionaries***"). The allegation that Cisco may provide ***different dictionaries*** has no relevance to whether there are "first default" and "context-specific" definitions ***within a Diameter dictionary*** as required by the claims. Indeed, there are no such definitions in the accused products. Furthermore, WSOU purports to rely upon documentation about the Radius dictionary, which is not related to the Diameter dictionary. *E.g.*, Infringement Contentions at 14.

It does not appear that WSOU has any basis to claim infringement of this patent. If WSOU disagrees, please identify the basis for continuing to allege infringement of this patent. Otherwise, this patent should be dismissed.

'859 Patent. WSOU alleges infringement of claims 1-26, which require that "the Activate PDP Context Request message [has] an APN (Access Point Name) field containing information that explicitly indicates requesting either a private network address or a public network address to be assigned to the mobile station."

The accused products do not do anything of the sort. There is nothing in the APN field that indicates whether a public or private network address needs to be assigned to the mobile station. As the name suggests and as is confirmed in the standard, the APN field indicates the access point to which the mobile station is trying to connect. It has nothing to do with whether or not the mobile station should receive a public or private address. Unsurprisingly, WSOU fails to allege any facts that would suggest that the APN field would provide the required indication. Instead, WSOU alleges that the indication is sent as part of an APN restriction

value. *See* Compl., ¶ 29; Infringement Contentions, Exhibit B at 2. As an initial matter, at least for claims 1-9, 11-21 and 24-25, the APN Restriction value is not even sent as part of the Activate PDP Context Request message as required, creating a fundamental problem with WSOU's allegations. Furthermore, all of the claims require sending the explicit request for a public or private network address as part of the APN field. WSOU's allegation therefore fails because the APN Restriction value is sent as part of the APN Restriction field, which is a separate field from the required APN Field.

It does not appear that WSOU has any basis to claim infringement of this patent. WSOU should drop this patent immediately or explain its basis for proceeding.

'106 Patent. WSOU alleges infringement of claims 1-3, 5-12 and 14-18, which require an ICME that detects "an inter-technology change-off of a multi-modal device from a first access technology of the converged network to a second access technology of the converged network" and a policy database that searches for "an access technology policy corresponding to said second access technology."

The accused products do not do anything close to the required limitations. WSOU alleges that the Wireless Access Point/WLAN controller is the ICME and the ISG/WAG is the policy manager. Compl., ¶ 47; Infringement Contentions, Exhibit C at 5-11. As suggested by their names, the accused Wireless Access Point/WLAN controller and ISG/WAG are only used for Wi-Fi access. The Access Point/WLAN controller cannot be an ICME because it does not detect inter-technology change-offs and does not transmit an inter-technology change-off message. Furthermore, the ISG/WAG does not search a policy database for a policy dealing with a specific access technology, since it only deals with UEs connected via Wi-Fi.

It does not appear that WSOU has any basis to claim infringement of this patent. If WSOU disagrees, please promptly provide the basis for continuing to allege infringement of this patent. Otherwise, this patent should be dismissed.

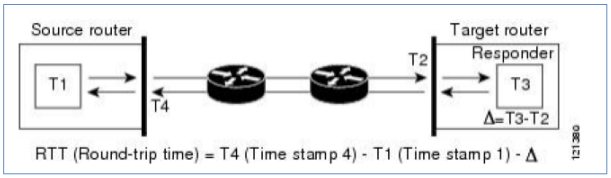
'733 Patent. WSOU alleges infringement of claims 1-2, 4-10, 12-17 and 19-20, which require, in part, "determining at ***each*** of said plurality of network elements on said round trip path the presence of said probe session indicator, and responsive to the presence of said probe session indicator, logging a first timestamp corresponding to the time of receipt of said loopback message, and a second timestamp corresponding to the time of retransmission of said loopback message."

Despite the specific requirements of the claims, WSOU resorts to accusing "IP Service Level Agreements" ("IP SLA"), *see* Compl., ¶ 61; Infringement Contentions, Exhibit D at 1-38, an umbrella term covering many different functionalities and operations, such as Data Link Switch Plus, Domain Name System, etc. These numerous functionalities are confirmed by the

very documents that WSOU cites in the Complaint. *See id.*, ¶ 61 n.23 (citing https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/ipsla/configuration/15-mt/sla-15-mt-book/sla_overview-0.html) (describing "various types of IP SLAs operations"); *see also* Infringement Contentions, Exhibit D at 10 ("Depending on the ***specific*** IP SLAs ***operation*** . . . ."). Yet, even a cursory review of WSOU's cited documents and other publicly and readily accessible documents would show that none of the operation types in IP SLAs meet the aforementioned limitation of the claims. It is telling that WSOU could not identify a specific operation type within IP SLA—because none exists—that purportedly meets the claims' requirements.

Next, the asserted claims require logging time stamps at "***each*** of [the] plurality of network elements" along the round trip path. *See, e.g.*, Infringement Contentions, Exhibit D at 7 (claim element 1[D]). However, WSOU only alleges that time stamps are taken at the source and target device, and ***not*** at the intermediate network elements. *See id.* WSOU's purported "evidence" alleging Cisco meets this limitation, depicted below, specifically shows that time stamps are only taken at the source and target router:

For example, "[t]he figure below demonstrates how the responder works. Four time stamps are taken to make the calculation for round-trip time. At the target device, with the responder functionality enabled time stamp 2 (TS2) is subtracted from time stamp 3 (TS3) to produce the time spent processing the test packet as represented by delta. This delta value is then subtracted from the overall round-trip time. Notice that the same principle is applied by IP SLAs on the source device where the incoming time stamp 4 (TS4) is also taken at the interrupt level to allow for greater accuracy." *Id.* at 6–7.

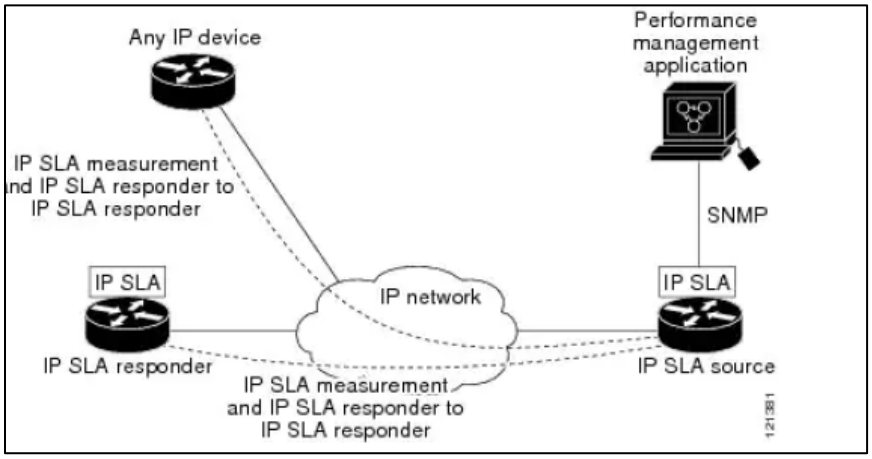


Id. at 7

See id. As indicated above, there are ***no*** time stamps taken at the intermediate network elements between the source and target routers.

Finally, and perhaps most significantly, IP SLA ***pre-dates*** the September 30, 2011 priority date of the '733 patent; any reasonable pre-suit investigation would have easily revealed this information. As just one example, IP SLA was described in U.S. Patent 7,936,692 (the "'692 patent"), which is assigned to Cisco, and was filed on May 26, 2005. *See, e.g.*, '692 patent at 3:39-43 ("Using IP SLA, service provider customers can . . . understand network performance."), 3:59-62 ("IP SLA performs active monitoring by generating and analyzing traffic to measure performance either between Cisco IOS devices or from a Cisco IOS device to a remote IP device such as a network application server."); *see also* U.S. Patent 7,606,159 (filed on August 30, 2005, titled "Method and apparatus for updating best path based on real-

time congestion feedback," and describing IP SLA). As another example, WSOU's infringement contentions repeatedly rely on the above figure, *see, e.g.*, Infringement Contentions, Exhibit D at claim elements 1[A], 1[B], 1[C], 1[D], and 1[E], and the following figure:



See, e.g., Infringement Contentions, Exhibit D at claim elements 1[A], 1[B], 1[C], and 1[F]. However, ***both*** figures were disclosed before the '733 patent's priority date. *See* Cisco Networkers 2007, *available at* https://doc.lagout.org/network/Cisco/Networkers/2007/Cisco%20IOS%20IP%20Service%20Level%20Agreements%20Lab/MA_LABNMS-2001_285018_156-1_v1.pdf (Figures 1 and 2). As another example, the Internet Archive Wayback Machine has several archived versions of Cisco's website describing IP SLA ***before*** 2011. *See, e.g.*, https://web.archive.org/web/20050305223056/http://www.cisco.com/warp/public/732/Tech/nmp/ipsla/.

As WSOU is well aware, since IP SLA ***pre-dates*** the '733 patent, to the extent WSOU alleges IP SLA is covered by the claims, then IP SLA also invalidates the asserted claims. *See WPEM, LLC v. SOTI Inc.*, No. 2:18-CV-00156-JRG, 2020 WL 555545, at *4 (E.D. Tex. Feb. 4, 2020) ("[I]t is a long-held maxim of patent law: 'That which infringes, if later, would anticipate, if earlier.'").

WSOU does not appear to have any basis to allege infringement of the '733 patent, and should immediately dismiss its infringement allegations involving this patent. If WSOU disagrees, please promptly let us know the basis for WSOU's continued allegation that Cisco infringes the '733 patent.

'014 Patent. WSOU alleges infringement of claims 1-9, 12-15 and 18-19, which require, in part, a "service connection identifier ***for the service connection***," and "send[ing], toward a

server, a service connection request message comprising the ***service name*** of the connected services layer."

WSOU's infringement accusations rely on the 3GPP 5G standard. *See* Compl., ¶¶ 78–79. The 5G standard, however, does not incorporate "a service connection identifier for the service connection." WSOU attempts to avoid this indisputable fact by alleging that the "NF 'serviceName' [and] 'version'" are the "service connection identifier for the service connection." *See* Infringement Contentions, Exhibit E at 7, 10. But as the 5G standard explains, the "serviceName" is the name that represents the *individual* network function. *See* 3GPP TS 29.510 version 15.1.0 Release 15 at 37 ("serviceName" is the "Name of the service instance"). "Version" only indicates "[t]he API versions supported by the NF Service and if available, the corresponding retirement date of the NF Service." *Id*. Thus, the serviceName and/or version only indicate the name of the end NF Service—they do not identify the ***connection*** between network functions.

The 5G standard also does not provide for "a service connection request message comprising the service name of the connected services layer"[2] that is sent to the server. Tellingly, WSOU's Complaint and infringement contentions are inconsistent as to how Cisco purportedly meets this limitation. In the Complaint, WSOU attempts to gloss over this limitation by stating that an "NF [can] register its services with the NRF." Compl., ¶ 79. But NF Registration is not a service connection request message. *See* 3GPP TS 29.510 at 12. Indeed, 3GPP TS 29.510 specifically describes a service connection request message in sections 5.3.2.2.2 and 6.2.3.2.3.1 and neither of those sections states the service connection request messages contain the service name of the connected service layer. Perhaps recognizing the deficiency in the Complaint, in the Infringement Contentions, WSOU changes course and alleges that the NF Consumer can send "an HTTP request to the NRF [that] contains the NF Instance ID of the consumer (e.g., 'service name of the connected services layer')." *See, e.g.*, Infringement Contentions, Exhibit E at 43. But the Cisco documentation cited by WSOU and the 5G standard clearly indicate that the NF Instance ID of the consumer is ***not*** one of the query parameters in NF Discovery. *See* https://www.cisco.com/c/en/us/td/docs/

[2] To be clear, WSOU's allegations that the claimed "connected services stack" reads on a traditional "TCP/IP" stack, *see* Compl., ¶ 78, is also incorrect. As WSOU is undoubtedly aware, the intrinsic record is clear that the connected services stack is different from a traditional TCP/IP stack. *See, e.g.*, '014 patent at Fig. 2; '014 File History, 11/11/15 Applicant Argument at 2 (explaining that claims recite "a ***specific*** communication stack configuration, which is one of many potential communication stack configurations"). Moreover, WSOU's infringement allegations do not allege that any purported "connected services layer" operates below the application layer and above the transport layer. *See* Infringement Contentions, Exhibit E at 2-9.

wireless/ucc/smf/b_SMF/b_SMF_chapter_011100.html at 21 (describing "query parameters to include in the NF discovery request towards the NRF" and not including NF Instance ID of the consumer); 3GPP TS 29.510 at Table 6.2.3.2.3.1-1.

WSOU does not appear to have any basis to allege infringement of the '014 patent, and should promptly dismiss its infringement allegations involving this patent. If WSOU disagrees, please immediately let us know the basis for WSOU's continued allegation that Cisco infringes the '014 patent.

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For the reasons stated above, WSOU should dismiss these complaints immediately. We expect that WSOU will consider Cisco's request promptly and seriously. If WSOU chooses to ignore these requests and refuses to dismiss these actions, Cisco reserves the right to seek all available remedies for being forced to defend against such meritless allegations, including those under 35 U.S.C. § 285.

Best,

/s/Brian Rosenthal

Brian Rosenthal